

Watching for "First Blow"—

WHY U. S. PLANES PATROL RED FRONTIERS

U. S. aircraft, flying the Soviet-Turkish border, are only one part of a gigantic but little-known defense mission.

Mission: to keep constant tab on Soviet forces, detect the first sign of any preparations for surprise attack.

More than planes are involved. Elaborate radar, other electronic "watchdogs" are alert to pick up any move by Russia.

When five Soviet jets last September 2 attacked and shot down an unarmed U. S. transport plane, killing 17 U. S. Air Force personnel, these questions were raised: Why are unarmed U. S. planes flying even close to the Soviet borders? What's the mystery about U. S. activities in these danger areas?

The answer is that there is no mystery at all about U. S. activities on the Soviet borders. In today's dangerous world, this country has announced that it will accept the "first blow" rather than attack if war threatens. That blow, if successfully delivered, could destroy much of the U. S.

Billions for detection. Survival thus depends upon being able to discover what a potential enemy capable of delivering such a blow is planning. So the United States is putting billions of dollars into radar and other electronic "eyes and ears" as a first line of defense against a surprise attack by the Soviet Union.

But the U. S. is seeking with its air patrols, its sensitive radar and radio-detection equipment now surrounding Russia is something less than 20 minutes' warning of any Soviet intercontinental ballistic missile fired at the U. S. or its allies. This would be time enough to get U. S. bombers into the air and U. S. missiles off launching pads for retaliatory nuclear strikes.

This much, now, can be reported

of the U. S. surveillance system as it operates at present:

• Powerful radio listening posts already surround the Soviet Union, in constant operation, day and night. These "ears" not only record what is said by fixed stations, but even pick up short-distance radio communications between mobile units of the Red Army in the field thousands of miles from the Western "ears."

• Giant radar screens, capable of pinpointing objects in motion up to 3,500 miles away, are constantly scanning the Soviet Union from the U. S. and from bases in Allied countries.

• U. S. patrol planes, loaded with electronic "listening" and "watching" equipment, are in the air in several areas close to the Soviet frontier. It was one of these planes which U. S. Air Force experts now are convinced was deliberately lured into Soviet Armenia and shot down, though unarmed, last September 2.

• All sorts of electronic "ears" in the air and on the ground in many parts of

the world are keeping a watch on Krasny Yar, the Soviet missile-testing station similar to Cape Canaveral, Florida, and on other areas where the Soviet Union is operating or building missile-launching bases for intercontinental ballistic missiles.

In addition, the U. S. is speeding up the construction of the Ballistic Missile Early Warning System known as "B-MEWS." This system, which will cost at least 250 million dollars, is to augment the existing Distant Early Warning (DEW) Line in the Arctic.

2 years old, obsolete. DEW Line, put on an operational basis less than two years ago, cost 600 million dollars. But DEW Line's 58 stations can provide information only on aircraft, not ICBM's, and therefore are already obsolete.

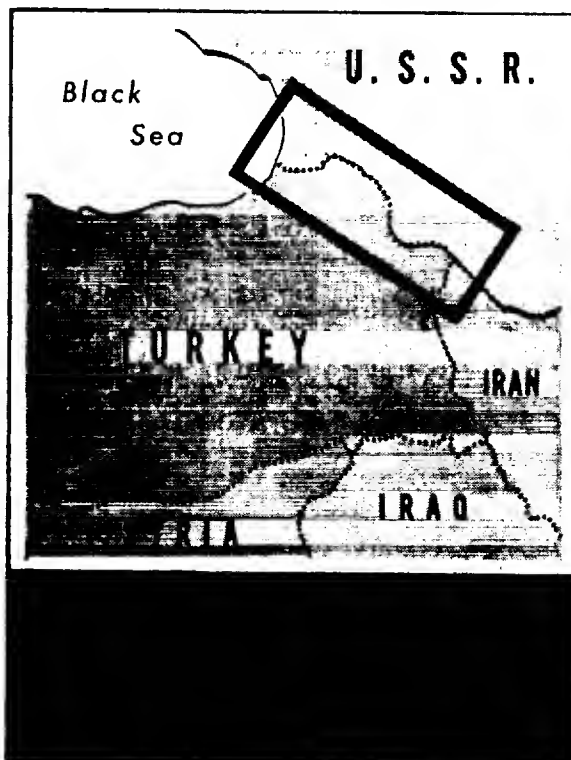
B-MEWS is to have three sets of "eyes and ears"—stations about 1,000 miles apart—capable of picking up the launching of the big missiles 3,500 miles away. The radar equipment for B-MEWS stations is mounted on 16-story towers.

Data thus gathered are funneled into evaluation and tracking systems. The results are transmitted in a matter of seconds to U. S. defense headquarters.

Concrete bases for two B-MEWS sites were poured at Clear, Alaska, and at Thule, Greenland, in the Arctic summer of 1958. Steel towers already are under construction. Power plants, towers and buildings alone will cost 189 million dollars for three stations, apart from the cost of electronic equipment. The third station may be located in Northern Scotland.

Electronic "missile watchers." A host of electronic devices and carriers already are operational and may be used in the U. S. effort to keep a watch on the ballistic missiles of the Soviet Union. Most are under heavy wraps of official secrecy.

The U. S. Army recently reported successful tests of a "snooper" drone, designated the SD-3. This pilotless plane is just 15 feet long, with a wing span of 11 feet. When packed with electronic equipment and sensory devices for



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ground and air observation, it weighs less than half a ton. The "snooper" is launched by rocket motors from a mobile trailer and is capable of fast, low-level flight. It can transmit data in flight and can be equipped with a self-destructive device.

There is no word that the "snooper," designed for battlefield use in a shooting war, can be used in the "cold war" job of watching the Soviet Union. But some such drones may be used for border-patrol work in the future to avoid loss of

Prime objects of the U. S. electronic watch on the Soviet Union, of course, are the Red ICBM's, which, Soviet leaders boast, can hit "any target anywhere in the world."

Electromagnetic energy is the chief clue to the launching of these missiles. ICBM's and even intermediate range missiles generate such energy on launching that they can be detected for thousands of miles by U. S. equipment.

In addition, these missiles leave behind them a trail of ionized gases. This

say, either by a direct hit of missiles equipped to "home" on the attacking ICBM or by exploding a nuclear missile high in the air in the path of the attacker. This last method would create across the path of the attacking ICBM a nuclear "oven" which would "cook" and destroy it.

In 1964 as today, however, U. S. defenses will be totally dependent on getting an early warning of Soviet missile launchings directed at targets in the Western world. Normal intelligence channels involving agents are far too slow for the job. Only "electronic espionage," according to defense experts, can provide such warning.

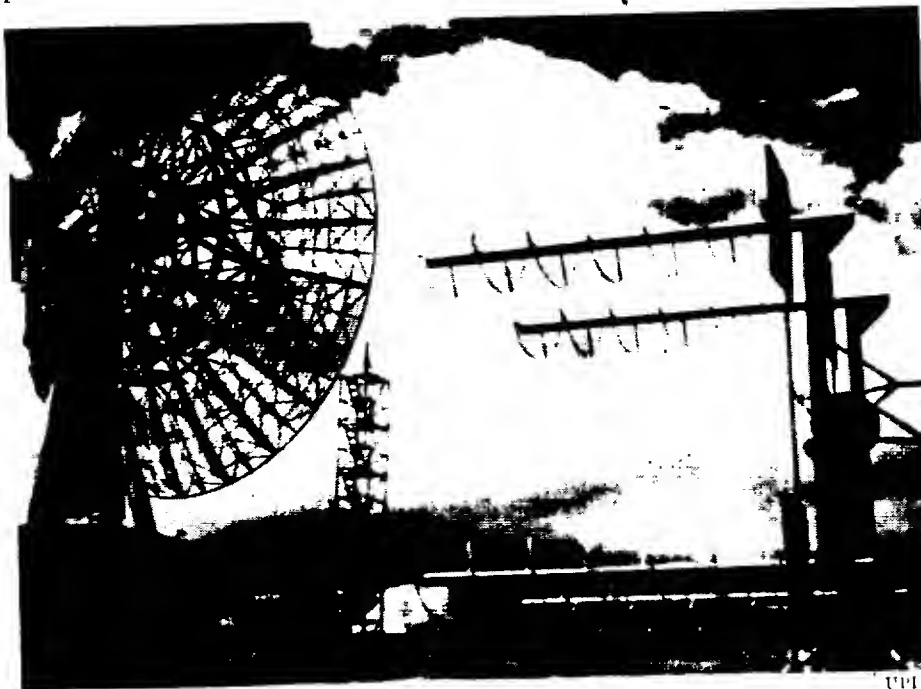
Radar at work. Rapid advances have been made in the U. S. on the radar and other instruments required for "early warning" systems. Early in 1957, for example, the General Electric Company, working with the U. S. Air Force and the Turkish Government, set up a coherent detection radar system at Samsun, a Turkish port on the Black Sea. This system, developed by the Lincoln Laboratory of the Massachusetts Institute of Technology, had a 1,000-mile watching and listening range. As the Samsun system began operations, however, the Omnirange Digital Radar (ODIR) system was developed at Columbia University. It extends U. S. radar range to well over 3,500 miles.

The ODIR system, said to be installed already in the Turkish listening post, feeds data into computers and then into high-speed teletypewriters which can be hooked up with the U. S. Air Force Continental Defense headquarters in Colorado Springs, Colorado. Similarly, Air Force commanders in the U. S. can, at the flip of a switch, talk to combat commanders at U. S. bases the world over.

Records of squeaks. A year ago the British magazine "Isis," published in Oxford, reported: "All along the frontier between East and West, from Iraq to the Baltic, perhaps farther, are monitoring stations, manned largely by national servicemen trained in Morse or Russian, avidly recording the least squeak from Russian transmitters—ships, tanks, aeroplanes, troops and control stations."

For that report of "electronic espionage" two Oxford students were arrested and jailed for three months for violation of the Official Secrets Act. Since that report, however, the U. S. Government itself has released much information on the Allied effort to reach into Soviet territory with electronic "eyes and ears" to guard against a Soviet sneak attack on the West.

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RADAR STATIONS and other electronic equipment—including that in air patrols—help give the U. S. its first line of defense against a Red missile attack

life even if the "snooper" is drawn into Soviet territory.

A Soviet trap. The unarmed C-130 transport plane which was shot down by Soviet jet fighters last September in Soviet Armenia was equipped for electronic "surveillance" work, but it was under orders to stay in Turkey. A week later the U. S. Air Force sent another plane on the same route to try to ascertain what had happened.

The second plane discovered that Russian directional beams out of Soviet Georgia and Soviet Armenia were put into operation on the same frequency as the beam from the Turkish tower at the Trabzon air base, overpowering this beam. It was a Soviet trap, U. S. Air Force officials said, which drew the first U. S. plane into Soviet territory. Electronic "snoopers," controlled from the ground, could avoid such traps.

trail, once a missile is spotted in the air, permits the electronic "eyes" not only to trace the missile back to its base but to give data which will determine the target area of the missile.

ICBM's and decoys. It is entirely possible, U. S. experts report, for the Soviet missile men to provide their ICBM's with "decoys." The rocket casing itself, experts say, can be exploded at some point in flight, causing large fragments to break away from the warhead and to follow courses of their own. Such fragments would be larger than the warhead, though not as heavy. In addition, Soviet missile men could seek to confuse watchers, on attack, by setting off several ICBM's simultaneously.

By 1964, the U. S. expects to have in operation antimissile missiles which can meet Soviet ICBM's on the way and destroy them. This may be done, experts